

It is clear from the text that all the wells have some type of closed bottom with one or more holes and that this bottom structure serves as the filter retention device. This can be seen from the Figures and described in the text. As is well known in the art, this bottom can take several forms all of which are interchangeable such as a grid or lattice (e.g. a bottom with many holes) or a rim or shelf that extends inward into the well from the well wall on which the filter rests(e.g. a bottom with one large centrally located hole.) and the like.

It is believed that the phrase used in the amended claims clearly covers all embodiments, is clear and concise and well known to one of ordinary skill in the art and that the objection to the specification has been overcome.

Likewise the drawings have been objected to for failing to show other arrangements of the filter retention device and any structural arrangement that is essential should be shown in the drawings. As the retention device is the bottom of the well in whatever form it may take, it is believed that no additional drawings are required. Likewise the amendments to the claims make the claimed invention clear and is supported by the specification and drawings.

Claims 1-12 and 16 have been rejected under 35 USC 112 first paragraph as containing subject matter not described in the specification. In view of the above and the amendments to the claims it is believed that the rejection is overcome.

Claims 1-12 and 16 have been rejected under 35 USC 112 second paragraph as being incomplete for omitting essential cooperative relationships of the elements. In view of the amendments to the claims it is believed that the rejection is overcome.

Claims 1-12 and 16 have been rejected under 35 USC 112 second paragraph as being indefinite for failing to point out an distinctly claim the subject matter applicants regard as their invention.

In view of the amendments to claim 1 it is believed that the rejection is overcome.

More particularly, as to claim 11, the language has been changed to eliminate the redundancy between nylon and polyamides.

Applicants object to the rejection based on the term "polyolefins". It is clear and well known to one of ordinary skill in the art what is meant by the term polyolefins and that term as used here clearly is meant to cover all of them.

Further the office action clearly provides a commonly used definition. Moreover the Zermani reference, US 6,309,605 contains a similar list of polymers, including the term 'polyolefins', further reinforcing that the term is commonly known, understood and accepted in the art.

The citation to the present specification is erroneous as it clearly is not meant to be a limitation on the term polyolefins but is merely meant to provide some examples of the types of polymers in that definition. Note in particular that the polymers mentioned are prefaced by the phrase "such as". Clearly this is meant to be an example not a limitation on the term.

As such, it is believed that the term as used in the claim is clear and concise to one of ordinary skill in the art and covers any polymer which falls within the term "polyolefins".

As to claim 12, the use of the trademark BAREX is deemed to make the claim uncertain. Applicants submit a copy of the web pages from BP Polymers, the manufacturer of BAREX resins. The resins are described as acrylonitrile-methyl acrylate copolymers grafted to nitrile rubber resins. Applicants are willing to add that terminology to the specification if so allowed by the Examiner. Applicants have also substituted that terminology in claim 12 for the trademark BAREX.

Also claim 12 has been rejected for the use of the term "polyolefins". For the reasons stated above in regard to claim 11, Applicants believe the rejection is improper and should be withdrawn.

Likewise the rejection as to the terms "acrylic and methacrylic resins" is improper. Again, Applicants point to the Zermani reference which also has the same teaching. One of ordinary skill in the art would know what is meant by these terms and would be capable of selecting appropriate resins from commercial sources for their use in the present invention.

Claims 7-9 have been cancelled as being unnecessary.

Claims 1,2,7,9, and 10 have been rejected under 35 USC 102(b) as anticipated by Gasser et al (US 5,913,962). Applicants disagree.

Gasser et al relates to making an espresso maker cup. It incorporates a metal ring and a metal filter by injection molding the plastic of the cup around them. (See Column 2, line 13-15 "by employing standard methods, for example injection molding techniques...." And lines 34-35 " by an injection molding process...."). Nowhere does the reference teach that the filter is retained within the device by one or more skives. As such the reference fails to teach the presently claimed invention.

While Gasser et al may teach an inwardly tapered wall it still fails to teach the use of a skive formed from that wall to form the means for retaining the filter in the well as is required by the present invention.

Lastly, while the reference may use a metal filter it still does not use a skive to lock it in place. Rather it uses an injection molded plastic to secure it in place.

Claims 1-4, 7-12 and 16 are rejected under 35 USC 103(a) over Zermani (US 6,309,605B1) in view of Gasser et al. Applicants disagree.

The Examiner has considered a "skive" to be "any part that forms a seal or bond that retains the filter formed from a portion of the inner wall of the well". (Page 10, paragraph 20 of the office action). This interpretation of the term "skive" is improper and contradictory to that contained within the present specification. The definition used by the office action includes thermal bonding techniques as well injection molding techniques neither of which is described in the use of the term in the specification. In fact thermal bonding and gluing techniques are mentioned as the typical prior art processes and are excluded from the definition of "skive". See page 5, lines 26-27 "while eliminating the need for expensive welding equipment such as ultrasonic welders or the use of adhesives such as epoxies or thermal bonding technology."

As can be clearly seen from the specification and drawings a "skive" is one or more portions of the inner wall of the well that have been peeled and rolled on top of the filter's upper surface to lock in into the well. See for example Figure 2-4; Page 2, lines 13 -14 "a portion of the inner surface of the wall to be skived and rolled along the wall until it reaches the desired location...."; Page 3, lines 27- 29 "Figure 2 shows the device of Figure 1 after formation of the mechanical interlock. As can be seen a portion of the inner wall 11 has been

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skived and rolled on top of the filter 12 to form a mechanical interlock 13 against the filter 12 in the well 14. "; and Page 6, lines 13-16 "As can be seen the skiving device 30 encounters at least a portion of the inner wall surface 32 above the location of the filter 33 and begins to form a continuous roll 34 of wall material that stays attached to the wall after completion of the skiving and which mechanically interlocks the filter 33 in place within the well 31. ".

Clearly, one of ordinary skill in the art in reading the present specification would not interpret the term "skive" as has been done in the present Office Action. Instead one would clearly understand the term to mean a continuous peel of material from the inner portion of the well wall that is rolled upon itself and directed be in contact with the upper surface of the filter to lock it in place.

A skive as properly defined by the specification and drawings is neither taught nor suggested by the cited combination of references. Gasser et al teaches using an injection molding method to embed the filter plate edge into the wall of the structure. Zermani teaches using a thermal bond or an undercut with a separate gasket (Figure 6) to secure the bottom surface of the filter to a portion of the well bottom. The preferred method is thermal bonding, essentially melting a portion of the well beneath the filter and/or filter bottom material to create a seal. Neither teach nor suggest using a skive to form a mechanical interlock on the top surface of the filter as is required by the claims. As such, it is believed that the cited references alone or in combination fail to teach or suggest the present invention.

New Figures 9 and 10a and b were added to the application in order to comply with the requirements of the May 10, 2002 office action and have been indicated in this office action as being approved. Corrected drawings are enclosed with this Amendment.

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Applicants believes this reply is complete and conforms to the requirements of the Office Action. Applicants's attorney requests that the Examiner call him if it is believed that this reply is not in complete compliance with any of the Office Action's requirements.

Respectfully Submitted,


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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to Assistant Commissioner of Patents, Washington D.C. 20231

On January 31, 2003



Signature

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Typed name of person signing

VERSION with MARKINGS to SHOW CHANGES

In the Claims:

1. (Twice Amended) A filtration device comprising at least one well, each well having an open top and a closed bottom having one or more holes which allow liquid to pass through, [one or more] at least one piece[s] of filter positioned within each well and against the bottom of each well [a filter retention device within the depth of the well] and a mechanical interlock against a top of the filter, said well [and filter retention device] being formed of a plastic and said interlock being one or more skives formed continuously from at least a portion of an inner wall of the well and wherein the interlock remains attached to and as a portion of the inner wall.

Cancel Claims 7 -9.

Amend claim 11 as follows:

11. (Amended) The device of claim 1 wherein the one or more pieces of filter are made from a polymeric material selected from the group consisting of nitrocellulose, cellulose acetate, polysulphones, polyethersulphones, polyarylsulphones, polyvinylidene fluoride, polyolefins, [nylons,] polyamides, PTFE resin, thermoplastic fluorinated polymers and polycarbonates.

Amend claim 12 as follows:

12. (Amended) The device of claim 1 wherein the device is made of a material selected from the group consisting of styrene acrylonitriles, polyolefins, polycarbonates, styrene homopolymers and copolymers, PTFE resins, blends of polyolefins with small amounts of PTFE resins, ABS, acrylic resins, methacrylic resins [and] copolymers of acrylic resins, copolymers of methacrylic resins [either], acrylonitrile-methyl acrylate copolymers grafted to nitrile rubber [Barex] resins, nylons, epoxies, polyurethanes and reinforced resins.

Add new claims 24-26 as follows:

24.(New) The device of claim 1 wherein the at least one piece of filter are multiple pieces with the skive on top of the upper surface of the uppermost filter.

25. (New) The device of claim 1 wherein the at least one piece of filter are multiple pieces sequentially arranged in the well and sealed to the well by a skive formed between each layer of filter.

26. (New) A filtration device comprising 96 wells, each well having an open top and a closed bottom having one or more holes which allow liquid to pass through, at least one piece of filter positioned within each well and against the bottom of each well and a mechanical interlock against a top of the filter, said well being formed of a plastic and said interlock being one or more skives formed continuously from at least a portion of an inner wall of the well and wherein the interlock remains attached to and as a portion of the inner wall.